## **UNIT TERMINAL OBJECTIVE**

4-1 At the completion of this unit, the EMT-Intermediate student will be able to apply the principles of kinematics to enhance the patient assessment and predict the likelihood of injuries based on the patient's mechanism of injury.

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 4-1.5 Define energy and force (kinetics) as they relate to trauma. (C-1)
- 4-1.6 Define laws of motion and energy and understand the role that increased speed has on injuries. (C-1)
- 4-1.7 Describe each type of impact and its effect on unrestrained victims (e.g., frontal impacts, lateral impacts, rear impacts, rotational impacts, rollover). (C-1)
- 4-1.8 Describe the pathophysiology of the head, spine, thorax, and abdomen that results from the above forces. (C-1)
- 4-1.9 Describe the organ collisions that occur in blunt trauma and vehicular collisions. (C-2)
- 4-1.10 Describe the effects that restraint systems (including seat belts, airbags, and child safety seats) have on the injury patterns found in motor vehicle crashes. (C-2)
- 4-1.11 List specific injuries and their causes as related to interior and exterior vehicle damage. (C-1)
- 4-1.12 Describe the kinematics of penetrating injuries. (C-1)
- 4-1.13 List the motion and energy considerations of mechanisms other than motor vehicle crashes. (C-1)
- 4-1.14 Define the role of kinematics as an additional tool for patient assessment. (C-1)
- 4-1.15 List seven types of accidents that can cause spinal injury. (C-1)
- 4-1.16 Describe the sign that an injury has been sustained between the 5th and 7th cervical vertebrae and the importance of the phrenic nerve in C3 to C5 injuries. (C-1)

## **AFFECTIVE OBJECTIVES**

None identified for this unit.

## **PSYCHOMOTOR OBJECTIVES**

None identified for this unit.